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THE MINERAL INDUSTRY OF NFWFOUNDLAND AND LABRADOR

Review for 1986
and
Outlook for 1987

NOTES TO ACCOMPANY AN ADDRESS BY

Dr. Rex Gibbons
Senior Geologist
Publications and Information Section
Department of Mines and Energy
Government of Newfoundland and Labrador

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compiled by

Dr. Rex Gibbons, Senior Geologist
Publications and Information Section
Newfoundland Department of Mines and Energy
P.O. Box 4750
St. John's, Newfoundland A1C 5T7
(709) 576-3159

INTRODUCTION

There was a time when mining was our billion dollar industry. For three years in a row - 1979, 1980, and 1981, it was the only resource industry in Newfoundland and Labrador to reach a billion dollars in annual value of production.

But then disaster struck in 1982 with the recession.

In 1981, the total value of production was $1,030,263,000. Iron ore alone was $886,843,000 (86.1% of the total). Then, in 1982, the total value of production fell to $646,762,000, a drop of $383,501,000 (37.2%), and iron ore fell to $572,386,000 (a drop of 35.5%), and made up 88.5% of the total.

In 1983, the situation started to improve as the total value of production rose by about 25% to $807,003,000 and iron ore rose to about $711,727,000 (88.2%). This improvement continued through 1984, as the total value reached $979,224,000 (up by 21.3%) and iron ore increased to $851,420,000, representing 86.9% of the total. Metals other than iron accounted for $68,745,000, the largest single contributor being zinc from Newfoundland Zinc Mines Limited.

In 1985, the industry showed some declines again as the total value of production fell by $110 million dollars from $979 million to $869 million, a 11.2 percent drop. This was due primarily to a decrease of $77 million dollars in iron ore production and $27 million dollars in other metals; the latter reflects the final closure of Buchans in August 1984 and lower zinc production and price at Newfoundland Zinc Mines Limited in 1985.

The preliminary values of production for 1986 were released in mid-January, 1987, by the federal Department of Energy, Mines and Resources. For Newfoundland and Labrador, the total value was off by 12.1% from 1985 to $764,169,000. Iron ore was down by about $72 million (9.3%) to $702,483,000. There was also a large drop (35%) in other products, going from $94,925,000 in 1985 to $61,686,000 in 1986. This was mostly due to a large drop in the value of zinc in 1986, primarily because of the temporary shutdown at Daniel's Harbour, starting in April, 1986, because of low zinc prices.

Nonmetals, including asbestos, barite, gypsum, quartz, pyrophyllite and peat, and structural materials, including aggregates, cement, and clay products (brick), totalled $53,422,000 in 1986, basically equal to the total of $53,882,000 in 1985. Three new operations started in 1986, namely, slate, dolomite, and slag aggregate.

Table 1: VALUE OF MINERAL PRODUCTION

Year	Total $	Iron Ore $	Iron %
1981	$1,030,263,000	$886,843,000	86.1
1982	646,762,000	572,386,000	88.5
1983	807,003,000	711,727,000	88.2
1984	979,224,000	851,420,000	86.9
1985	869,727,000	774,802,000	89.1
1986*	764,169,000*	702,483,000*	91.9*

* Preliminary

Table 2: VALUE EXCLUDING IRON ORE

Year	Value	Percentage
1981	$143,420,000	13.9
1982	$ 74,376,000	11.5
1983	$ 95,276,000	11.8
1984	$127,804,000	13.1
1985	$ 94,925,000	10.9
1986	$ 61,686,000*	8.1*

*Preliminary

A year ago, at Business Outlook'86, I was somewhat relieved, based on the preliminary values of production for 1985, that values had not decreased as much as previously forecast in the iron ore sector and the province's preliminary total value of production for the year was at $927 million. Well, did I ever get a shock when the final figures for 1985 were released! Instead of $927 million for the year, the final revised figure stood at $869 million, an extra $60 million decrease and primarily all due to reductions in the iron ore sector.

The preliminary figures for 1986, as given above, are even worse.

A year ago, both iron ore producers were optimistic that their production for 1986 would be comparable to 1985. Instead, I.O.C.C. had a 5% decrease in concentrate production and Wabush Mines had a 15% decrease. The latter was due to two of the steel company co-owners of Wabush Mines, LTV Steel and Wheeling-Pittsburg, going into Chapter 11 bankruptcy protection in the United States and, therefore, being unable to take their share of production.

Also, during April, the industry on Newfoundland Island got a major shock when, due to depressed zinc prices, Newfoundland Zinc Mines Limited found it necessary to close down and await improvements in world zinc markets and prices.

Other sectors of the industry were comparable in 1986 to their production in 1985.

There is a mixed outlook for 1987.

In the iron ore sector, both I.O.C.C. and Wabush forecast reductions from 1986. Compared to total concentrate production of 19.1 million tonnes in 1986, they project 18.0 million tonnes in 1887, with I.O.C.C. also forecasting a reduction in fluxed pellets from 1.2 million tonnes to 800,000 tonnes. This is about a 6% decrease overall, a value of about $40-$50 million dollars.

The price of zinc has improved, but the picture for zinc in Newfoundland will continue to be uncertain until Newfoundland Zinc Mines Limited makes a decision on reopening. It is hoped that reopening can occur prior to Spring, 1987, in which case production for 1987 should certainly match or exceed production for 1986.

For the present nonmetals and structural materials operators, 1987 is expected to be comparable to 1986.

On the more positive side for 1987, St. Lawrence Fluorspar Limited started milling operations in mid-January and will give the nonmetals category a boost in production in 1987. Also, Hope Brook Gold Inc. expects open pit mining to get started by April, 1987, and forecasts the production of about 28,000 ounces of gold for the year, i.e. about $10 million dollars worth.

The other big positive for 1987 is in mineral exploration. The years 1985 and 1986 have been our best years ever in claim staking and related exploration, with the major impetus coming from gold. This year, 1987, looks like it will also be a very active year as drilling and more grassroots exploration are expected to continue at a high pace at a number of hot spots around the province.

In general, then, based on present forecasts for the various sectors, 1987 should be comparable to 1986 in terms of total value of production, with maybe a slight decrease if the drop in the iron ore sector is not matched by the increases due to gold, fluorspar and reopening of the zinc mine. Related economic activity on Newfoundland Island because of the latter will be better than in 1986. In Labrador, there will be a decrease unless the outlook for iron ore improves.

The detailed reviews of the various sectors, given next, tell how the different companies see their operations in 1987.

IRON ORE

Iron Ore Company of Canada, Labrador City

In 1986 concentrate production declined 5% to 14.5 million tonnes and pellet production increased 7% to 9.6 million tonnes when compared to 1985 levels. Pellet production included 1.2 million tonnes of a new product called fluxed pellets.

In 1986, the concentrator operated at 78% of capacity, and the pellet plant at 96% of capacity.

The 1986 work force at Labrador City was 1540.

Production in 1987 is expected to decline to 13.6 million tonnes of concentrate and to 9.0 million tonnes of pellets, including 800,000 tonnes of fluxed pellets.

Efforts continue at improving productivity and lowering the unit cost of production. In this regard, the installation of two large wet grinding mills at a cost of $20 million has been completed.

For the production of fluxed pellets, I.O.C.C. needs a supply of dolomite and limestone. The dolomite is supplied from a new quarrying operation at nearby Albert Lake. In 1986, 100,000 tonnes were mined and about 30 people were employed during the production period in the summer. Approximately the same is expected for 1987. Limestone is presently imported but the possibility of obtaining it from western Newfoundland is being assessed.

Wabush Mines Limited, Wabush, Labrador

In 1986, this operation ran at only 75% of capacity (which is 6.0 million tonnes) and produced 4.6 million tonnes of iron ore. This was down 15% from production of 5.385 million tonnes in 1985. The present forecast for 1987 is 4.4 million tonnes, but this is subject to review later in the year. Final production figures depend on the requirements of the U.S. and Canadian steel industry co-owners of the Wabush operation. Presently, LTV Steel and Wheeling-Pittsburg are under Chapter 11 bankruptcy protection and are not taking their 25% of production. As a result, Wabush is expected to have a 7-week shutdown, from June 29 to August 17, 1987.

The markets for Wabush iron ore are about 40% Canadian (Dofasco and Stelco), 55% American (several steel companies), and 5% European (Finsider, Italy). In 1987, Wabush is also becoming more active in marketing on the open market in Europe. Any success should result in increased production.

Ore reserves at Wabush total about 300 million tons of concentrate (enough for 50 to 60 years at the present production rate). Some development drilling and stripping were done in 1986 to further delineate reserves for near-term mining and to uncover ore for mining. None are planned for 1987.

Manganese occurs as a small component of the iron ore in the Scully mine. Wabush Mines is still evaluating the possibility of recovering manganese as a by-product of its iron ore production. In the past, Wabush has been producing pellets averaging 1.95% manganese. The company recently adopted a mining plan to produce a lower manganese pellet of about 1.65% by ore blending; such a pellet would be easier to sell.

Also in an effort to improve productivity, Wabush is doing some research with the help of the federal and provincial governments to improve iron unit recovery in its own mill. Presently, recovery is about 62% and the aim is to increase recovery to about 75%.

BASE METALS

Zinc - Newfoundland Zinc Mines Limited, Daniel's Harbour

In 1986, Newfoundland Zinc Mines Limited operated from January 1 to April 14, during which time it milled 92,671 tons of ore averaging 5.9% zinc and produced 10,675,636 pounds of zinc concentrate (47% of budget).

The mine was closed and put on care and maintenance status as of April 14, 1986. The reason for closure was an extremely low value for zinc. Since zinc prices have improved somewhat, it is hoped that reopening can occur prior to Spring, 1987.

Employment in 1986 was 170 people while operating. Status for 1987 is uncertain.

Presently, reserves at this mine total about one million tons, equal to about 2 years of mining. Unless more ore is discovered, this looks like the maximum life for the operation when and if it reopens.

GYPSUM

Flat Bay Gypsum Mine, Flintkote Holdings Limited

Flintkote Holdings is a western Newfoundland gypsum mining operation which supplies minus eight inch gypsum to wallboard manufacturing plants and the cement industry. Most of the production goes to wallboard plants in Camden, New Jersey and Savannah, Georgia in the United States; smaller amounts are shipped to a wallboard plant in Corner Brook and to cement plants in Ouebec and Corner Brook.

Volumes from the operation are variable and are tied directly to the housing/building construction industry in the United States. Shipped volumes have been as high as 900,000 tons but the norm is in the 600,000 ton range. The 1986 production was approximately 540,000 tons and the forecast for 1987 is 530,000 tons.

The operation is seasonal. Approximately 80 people are employed during the Summer-Fall period while the company is processing and shipping ore. For the remainder of the year, about 60 people are employed; this is the development season and no production takes place.

Exploration and development are ongoing. About 12,000 feet of diamond drilling was done in 1986 and 2,000 feet is planned for 1987; about 30 line miles of seismic surveys were also completed in 1986, as well as mapping adjacent to the current operations. During 1986, about 1.2 million tons of overburden were extracted, and about 350,000 tons are planned for 1987.

The company presently has about 6-8 years of proven reserves, but it has large geological reserves.

Gypsum Wallboard, Atlantic Gypsum Limited, Corner Brook

This company obtains its gypsum from Flintkote Holdings Limited, Flat Bay.

Production in 1986 totalled 60,000 tons of gyproc wallboard, an increase of 9% over 1985 and an all-time high for the company. Operations were five days per week for 13 weeks and seven days per week for 34 weeks, with downtime of 3 weeks for repairs and 2 weeks for lack of paper. Employment for 1986 was stable at 98 union personnel and 12 staff.

Products in 1986 were 80% regular gypsum wallboard and 20% type X high fire resistant wallboard. Markets in 1986 included 47% Newfoundland and 47% the Canadian Maritime provinces and 6% United States.

For 1987, the company projects a full 7-day/week operation with about a 5% increase in production over 1986.

BARITE

Buchans

Barite was a major gangue mineral of the Buchans base metal ores and is a major component in the tailings.

In 1980, ASARCO and Abitibi-Price signed an agreement with Baroid Company of Canada to modify the Buchans mill to reprocess the tailings for the recovery of barite. This modification was completed in mid-1981 and the barite production operation was officially opened on August 28, 1981.

Since then, drilling mud grade barite has been produced at Buchans on an intermittent basis, depending on demand created by offshore oil activity. There was no production in 1986. However, during 1986, the companies gave a number of their assets to the town of Buchans, including the barite facilities. These are now run by the Buchans Development Corporation.

Collier Point, Trinity Bay - Eagle Resources Limited

There was no activity on this property in 1986; at this time 1987 appears no better.

SILICA

ERCO/Dunville Mining Company, Villa Marie, Placentia Bay

This silica operation went into production in 1968 as a source of silica for the ERCO phosphorus plant at Long Harbour. ERCO uses silica as a flux in the transformation of phosphate rock into elemental phosphorus.

The company normally operates from April to November, day shift only, 5 days per week, producing material grading about 95% silica. Production in 1986 was 150,000 tonnes and the forecast for 1987 is 150,000 tonnes. Ore reserves are approximately 3 million tonnes.

Employment in 1986 averaged 8 people during the production period, and is expected to be the same in 1987.

At Long Harbour, adjacent to the phosphorus operations, ERCO has installed a $6 million crushing plant and shiploading facility which went into operation in December, 1985. It is designed to produce and ship about 320,000 tonnes of crushed slag aggregate in the form of five different size products. Markets are in the state of Florida, where the slag is used for asphalt mixes and drainage systems.

The plant obtains its raw material from the phosphorus furnaces. About 160,000 tonnes of crushed slag was produced and shipped in 1986, and 240,000 tonnes is forcast for 1987.

The slag aggregate is shipped in the same ships that bring phosphate rock from Florida. The system has the capability to load 1000 tonnes/hour for 48,000 tonne shipments. Existing sales contracts extend to the mid-1990s.

PYROPHYLLITE

Newfoundland Minerals Limited, Manuels, Conception Bay

Newfoundland Minerals Limited, the only producer of pyrophyllite in Canada, is a year-round operation employing 17 people.

The value of production (based on the price of pyrophyllite in the U.S. market) for 1986 and 1987 will be approximately $1.5 to $2 million.

During 1985 and 1986, the company carried out an extensive diamond drilling program in an effort to define the ore limits. The results of these drill holes are presently being assessed to determine a new projection of reserves. Currently, ore reserves are expected to maintain the operation to the year 2000.

During 1986 all the product was shipped to the U.S. for use in the ceramic tile industry. This will be the main market again in 1987 with the possibility of a shipment to Europe.

Waste rock from the operation is becoming popular for fireplaces, stone walls, chimneys and general home exterior decoration.

BRICK (SHALE)

Trinity Brick Products Limited, Milton

Shale is quarried on Random Island for the manufacture of brick at Milton. This plant has been in operation since 1886, with intermittent shut-downs and many renovations and additions over the years.

During the winter and spring of 1985, the company spent $1.9 million on a major upgrading which increased capacity to about 5.5 million bricks per year. Production in 1986 totalled about 4 million bricks for the year. In 1986, the company also started to manufacture a new and very popular "antique style" brick aimed at the residential market. Production in 1987 is forecast to be between 4 and 5 million bricks.

Milton bricks are marketed primarily throughout Newfoundland. Some are shipped to Labrador.

Employment in 1986 reached a high of 33 plant workers; the same number is expected during the production period in 1987.

CEMENT

North Star Cement Limited, Corner Brook

North Star Cement Limited operates limestone and shale quarries at Corner Brook. These two products, plus some gypsum from Flat Bay, are used in the production of cement at North Star's plant in Corner Brook.

North Star had a winter shutdown from December 20, 1985, to June 8, 1986. Production stopped on November 30, 1986, and is anticipated to restart in April, 1987.

Sales totalled 75,000 metric tonnes for 1986; the forecast for 1987 is approximately the same.

Employment during the production period in 1986 was 100 employees plus several casuals. No change is expected for 1987. Maintenance (trades) staff are employed during the shutdown period.

During 1986, a major modernization project costing about $4.6 million was carried out. This gives North Star the capability to make special cements as well as the normal portland. North Star has also invested $1.5 million in a bulk terminal at Long Pond, Conception Bay, which started operation in 1986. Bulk cement for customers on the Avalon and Burin Peninsulas can be transported from Corner Brook to Long Pond by a special self-unloading vessel.

Markets for North Star cement are primarily Newfoundland.

ASBESTOS

Baie Verte Mines Inc., Baie Verte

Baie Verte Mines Inc., a wholly owned subsidiary of Transpacific Resources Limited of Toronto, reactivated the former Advocate asbestos operation in September, 1982.

Milling operations resumed on March 10, 1986, following an extended 1985 Christmas shutdown. After 10 weeks of operation, another shutdown was necessary for inventory adjustment. This lasted nine weeks, with production resuming on July 20, 1986.

Since then, production has continued on a 2-shift/day operation or 10 shifts per week. This change from the previous 3-shift/day, 15-shift/week operation has been very successful and has provided a much improved balance between production and inventory.

The net result was 31 weeks of milling operation in 1986, slightly less than 1985.

The mining operation continued uninterrupted throughout 1986 on a 20 shift/week basis. The mining of the north pit was completed in February, 1986. At that time, a large government-assisted waste removal program started in the west pit.

Production for 1986 totalled about 38,000 tonnes of asbestos fibre, with 28 percent Group 4, 57 percent Group 5 and 15 percent Group 6.

Shipping totalled 43,000 tonnes for 1986. Of that total, 76 percent went to Asia, with the largest single customer being India at 19,900 tonnes.

Production resumed in all areas of the plant immediately following the Christmas break. Fibre production is expected to be in the 50,000 tonne range for 1987. This will be achieved on a 2-shift/day basis with only 4-6 weeks of shutdown likely in 1987.

Mining will continue on a large scale for all of 1987. This will remove virtually all of the major waste areas in the pit, leaving a large supply of uncovered ore. This will also have the effect of dramatically reducing operational cost and provide a much more flexible situation in a very competitive market place.

Pricing continued to be weak in 1986. However, there are signs that the bottom may have been reached.

Present reserves are expected to take the mine into 1994-1995.

Regular operating complement is 45 staff employees and 260-275 hourly employees.

FLUORSPAR

St. Lawrence Fluorspar Limited

Various fluorspar mines operated at St. Lawrence, on the southern tip of the Burin Peninsula, Newfoundland, from 1933 until Newfoundland Fluorspar Limited, a subsidiary of ALCAN, closed officially on February 1, 1978. However, several fluorspar veins in the area still contain significant reserves. This was documented in a summary report published by the Newfoundland Department of Mines and Energy in 1983, and used to promote the area to potential developers.

As a result, in 1984, a new company, St. Lawrence Fluorspar Limited, a subsidiary of Minworth Limited of the United Kingdom, became interested in opening a new operation at St. Lawrence. During 1986, this company completed construction of its mill and development work on the mine at the Blue Beach North vein.

Milling operations began on January 21, 1987, and the first shipment of filter cake is expected to be shipped to market in February. The mill has an annual throughput capacity of about 200,000 tonnes of ore to produce about 80,000 tonnes of acid grade fluorspar (97.5% CaF_2). For 1987, the first year of operations, the company expects to produce about 60,000 tonnes, with the capacity of 80,000 being reached in 1988. By mid-1987, total employment should be about 100 people. Markets for most of the production are expected to be the United States and Canada, with some going to Britain and elsewhere in Europe.

Presently, the federal government is upgrading the wharf facilities at St. Lawrence, and a product shed is expected to be completed there by mid-year.

SLATE

Island Tile and Slate Company

In 1986, the Island Tile and Slate Company began producing slate from a quarry at Nut Cove, near Bourgoyne's Cove, Trinity Bay. The slate in the quarry can be used to produce red, green and purple products for a variety of uses, including roofing and floor tiles.

The company employed up to 18 people in 1986 and shipped its output to the United States. For 1987, it hopes to develop markets in Newfoundland and other parts of Canada as well.

Currently, the finished products are shipped from the site by barge. If a road can be constructed to the site from Bourgoyne's Cove in 1987, as many as 80 people could be employed to meet the demand for the product.

GOLD

Hope Brook Gold Inc.

BP-Selco made its first announcement on August 22, 1984 of a new gold discovery near Cinq Cerf Brook on Newfoundland's South Coast. Exploration continued throughout 1984 and 1985, and on December 11, 1985, BP announced that it had estimated a preliminary drill-indicated mineral reserve of 11.2 million tonnes at an average grade of 4.54 grams per tonne of gold between the surface and a vertical depth of 400 metres. The tonnage was calculated using a cut-off grade of 2 grams per tonne and a minimum mining width of 5 metres. Calculation of a mining reserve was done in 1986 as a feasibility study was carried out on the project.

Engineering and baseline environmental studies were undertaken in 1985. In mid-January, 1986, BP registered the project as the Hope Brook Mine with the provincial government under the Environmental Assessment Act.

In mid-1986, Hope Brook Gold Inc. was formed as a publicly traded company with BP as the majority shareholder, and a decision was made to proceed with development of a gold mining and milling complex approximately 5 kilometres inland from Couteau Bay on Newfoundland's South Coast.

Construction at the site was started in September, 1986, as contracts have been let and others are pending for various phases of the project, including mine, mill, dock facilities, and living quarters. The company has set up administrative offices in Corner Brook, Nfld; it has also obtained a ship, the Couteau Supplier, which links the site by sea with Port aux Basques.

Mining will be in two phases, an initial open pit phase which is projected to start in April, 1987 and continue for 17 months, followed by underground mining, which is expected to start in October, 1988, after completion of the mill and underground mine development.

Production of gold from the open pit will be by a process called heap leaching. It is projected that 341,000 tonnes will be processed in 1987 to produce about 28,000 ounces of gold. Total mineable reserves from the open pit are 684,000 tonnes. Total mineable reserves for underground are now calculated at 9,625,000 tonnes. After the mill is fully operational, it is projected that about 120,000 ounces of gold will be recovered annually.

In 1987, development of a decline to the underground reserves will start around the end of January to access the first stoping level. The decline will be about 1250 metres. Additional development will also be done in 1987 on the first stoping level.

In addition to the other project construction expenditures, about $1.6 million will be spent on general offsite exploration on Hope Brook properties in 1987 as well as about $3.9 million on onsite exploration and development.

Employment directly with Hope Brook Gold Inc. presently totals 30 people. By December 31, 1987, the level should reach 160, of whom 22 will be at Corner Brook and the rest at Hope Brook.

MINERAL EXPLORATION

In 1985, a record was set for claims as 15,162 new claims were staked during the year and 28,461 were in good standing on December 31, the highest numbers ever in the province. The past year, 1986, was also a banner year. Not quite as many new claims were staked, 14,594, but the number maintained in good standing set another record at 31,126.

Table 3: CLAIM STAKING

Year	New Claims	Total Dec. 31
1981	13,661	25,012
1982	4,670	18,517
1983	4,522	15,288
1984	11,048	19,662
1985	15,162	28,461
1986	14,594	31,126

The big boost in exploration continues to come from gold, as several areas of the province have become targets for gold exploration. I believe that a high level of activity will continue in 1987 as diamond drilling and other field surveys get carried out on recently staked claims, and further work is done on other potential gold and base metal areas of the province.

I will not go into detail on all the exploration activity in the province. Those interested may obtain a copy of our Mineral Exploration Update, prepared regularly by the Department of Mines and Energy.

Below, however, I will review the status of some of the most interesting and promising recent exploration successes in the province. These include (1) the Cape Ray gold project of Dolphin Explorations Limited, (2) the Little River (Bay d'Espoir) gold project of Westfield Minerals, (3) western White Bay, (F) Baie Verte Peninsula, and (5) industrial minerals.

Cape Ray Gold Project

In the 1984 field season, over 700 feet of underground development was done by New Venture Equities Limited. This program was successful in proving the geological reserves as calculated before (600,000 tonnes averaging about 0.26 ounces of gold and 0.5 ounces of silver per tonne). No work was done on the property in 1985.

Dolphin Explorations Limited of Vancouver has since acquired a 100% ownership subject to various royalty interests in four claim blocks totalling 6919 hectares. Dolphin as owner/operator has contracted Mascot Gold Mines Limited of Vancouver to manage their exploration activities in Newfoundland. This included a drilling program in the Fall 1986 concentrating on determining both the strike and down-dip potential of the main shear gold zone. Fourteen holes totaling 9902 feet were completed. Currently, the company is evaluating all existing data in anticipation of a major exploration and development program in 1987.

The conclusion of the previous owners in 1984-85 was that gold needed to be between $375 and $425 U.S. an ounce for mining to be feasible, and that development costs would be in the order of $10-$12 million, not including a 25 kilometre road to the site. We look forward to the continued assessment by the new owners, especially in view of the present price of gold.

Little River gold, Bay d'Espoir

In October, 1986, Westfield Minerals and partners Coniagas Mines and Anglo Dominion Gold Exploration announced the discovery in the Little River area, Bay d'Espoir, of stratabound gold mineralization which extends over a distance of four kilometres. Grab samples within trenches on the site assay as high as 0.34 oz Au/t and are commonly between 0.1 and 0.2 oz Au/t.

A drilling program was carried out on the property before the end of 1986 and more drilling is planned in 1987.

Western White Bay

Preliminary drilling was completed on two gold prospects in western White Bay in the early spring and summer, 1986. Several companies have been active in this area all year, and there is an air of optimism about the prospects. More drilling is expected.

Baie Verte Peninsula

Exploration for gold in the Tilt Cove, Nipper's Harbour and Mings Bight areas has been ongoing for several years. Results have been encouraging but no major discoveries have been made to date. Several companies were active in the region in 1986. In July, Noranda staked about 800 new claims between Baie Verte and the Trans Canada Highway, creating some speculation about its work on the peninsula. In late Fall, Noranda carried out a drilling program near Mings Bight.

Industrial Minerals

In western Newfoundland, there is significant interest in developing limestone quarries for various demands, including agricultural limestone for the Newfoundland market. There are various other markets being considered as well by companies evaluating the huge limestone and dolomite deposits of the Port au Port Peninsula area.

There is also some activity related to salt and potash potential of the Bay St. George area.

Under the Canada-Newfoundland Mineral Development Agreement, work in 1986 included drilling of a white marble deposit near Roddickton, on the Northern Peninsula, and of two high grade silica deposits near Labrador City. Both governments are optimistic that developers will be attracted to both these commodities for future developments.

BLACK CLOUDS

(1) Competition is severe internationally, especially for such products as, for example, iron ore and asbestos. This situation is not expected to improve in the next several years.

(2) The strength of the Canadian dollar relative to currencies of many mineral-exporting countries. The Canadian dollar is one of the strongest currencies in the world, despite its weakness against the U.S. dollar. However, in 1986, the Canadian dollar did lose ground against the Japanese yen and some currencies in Europe; this helps our export situation somewhat for mineral products. However, the dollar's recent strength against the U.S. dollar, which is projected to continue, will be a negative for exports to the U.S.A.

(3) Zinc. Now that ASARCO has permanently closed its Buchans operations, we have only one zinc mine in Newfoundland, at Daniel's Harbour, which has limited reserves and is presently closed down and under "care and maintenance" awaiting possible reopening in 1987. Unless this mine reopens soon and has some near-term exploration success to extend its reserves, we will not have any zinc mines by 1990 or even earlier.

(4) Asbestos. For several years, markets for asbestos in the developed countries have been shrinking as more and more restrictions have been placed on its usage, especially in the United States. Prices have also fallen considerably. Though there are some indications that prices might have bottomed out, there is little indication that the overall situation is likely to improve and cause increased demand and price.

(5) The world iron ore market is very competitive and is going to get more so. In 1979, Canada produced 60 million tons (#3 in the world) and was the world's leading exporter. Since then, some market share has been lost to Brazil and Australia, which now rank #2 and #3 in production, behind the U.S.S.R. Canada produced only 39.5 million tonnes in 1985, and only 36 million tonnes in 1986, and will not reach 1979 levels for many years, if ever. It now appears that India will replace Canada as the world's third largest exporter of iron ore in 1987 or 1988.

Brazil is one of the biggest competitors for our iron ore sector. Brazil has very large deposits of high grade ore that can be mined cheaply. In January, 1986, the Brazilian government's Carajas project came on stream and produced 12 million tonnes for the year; it is scheduled to produce 22 million tonnes in 1987. The planned capacity for this mine is 35 million tonnes per year. The implications for our export markets are obvious. The competition is going to continue to grow.

(6) Contract negotiations, Labrador West: At this time, in January, 1987, negotiations are underway between both I.O.C.C. and Wabush Mines and their unions. I.O.C.C.'s union has been chosen as the pattern maker for this round of negotiations for all unions involved in the iron ore industry in Labrador and Quebec.

(7) Threat to flow through shares: With the high price of gold, flow through shares are considered the other major reason for the high level of mineral exploration from coast to coast in Canada. The federal government is reviewing the tax regime in Canada, and many have expressed concern that the flow through share option may be eliminated. If so, there could be very negative effects on mineral exploration.

SILVER LININGS

(1) Gold. In 1984, gold fell by about $100 U.S., from about $400 to about $300 per ounce. In 1985, it stayed between $315 and $330 for most of the year. At the beginning of 1986, it was $326.75 but it jumped to $351 by January 20, 1986, and peaked at about $440 at mid-year. Since then, it moved downward to about $380 in late Fall, 1986, but had rebounded to $417.40 on January 20, 1987. Gold is the driving force behind most of the present exploration in the province.

(2) Potential diversification in western Labrador. Wabush Mines Limited is still assessing the possibility of recovering manganese from its iron ore. I.O.C.C. is now mining dolomite locally for use in the production of fluxed pellets. Silica deposits near Labrador City were drilled in 1986 under the Canada-Newfoundland Mineral Development Agreement.

(3) The difference between the U.S. and Canadian dollars. Since we sell most of our mineral exports to U.S. companies, the exchange difference helps the profit picture of our mining companies. This is particularly important for iron ore, gypsum, zinc, and pyrophyllite. However, recent strength of our dollar versus the U.S. dollar will negatively affect the economics of these products.

(4) Fluorspar. The new fluorspar mine at St. Lawrence started milling operations on January 21, 1987. Let us all wish it much success.

(5) Mineral exploration is at its highest level ever in the province, primarily because of interest in gold and recent successes like Hope Brook. The province has excellent prospects for other such discoveries.

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